

FIGURE 1.

esoGPCR Genes

Class A				Class A				Class A				Class A				Class B				
Family	Gene	Database ID	Species	Family	Gene	Database ID	Species	Family	Gene	Database ID	Species	Family	Gene	Database ID	Species	Family	Gene	Database ID	Species	
Acetylcholine (muscarinic)	CHRM1	81	H.M.	Histamine	HRH1	887	H.M.	Prostanoid	PTGDR	8172	H.M.	Orphan group A6	*GPR45	8258	H.M.	Parathyroid hormone	PTH1R	8340	H.M.	
	CHRM2	2	H.M.		HRH2	88	H.M.		PTGER1	173	H.M.		*GPR83	259	H.M.		PTH2R	341	H.M.	
	CHRM3	3	H.M.		HRH3	89	H.M.		PTGER2	174	H.M.		*GPR4	260	H.M.		Secretin	STCR	342	H.M.
	CHRM4	4	H.M.		HRH4	90	H.M.		PTGER3	175	H.M.		*GPR1	261	H.M.		ZACAP	ADCTAP1R1	343	H.M.
	CHRM5	5	H.M.		Hormone protein	FSHR	91		H.M.	PTGER4	176		H.M.	Orphan group A8	*GPR11		262	H.M.	Vasopressin	VPR1
ADORA1	6	H.M.	LHCGR	92		H.M.	PTGFR	177	H.M.	*GPR11	263	H.M.	Intestinal pacemaker		VPR2	345	H.M.			
ADORA2A	7	H.M.	TSR1	93		H.M.	PTGIR	178	H.M.	Orphan group A9	*GPR1	264	H.M.		Brain-specific	*BA1	346	H.M.		
ADORA2B	8	H.M.	TSR2	94		H.M.	PTGIR2	179	H.M.		*GPR80	265	H.M.		Angiogenesis inhibitor	*BA2	347	H.M.		
ADORA3	9	H.M.	KISS-1	GPR54		94	H.M.	PTGIR3	180		H.M.	Orphan group A10	*GPR2		266	H.M.	*BA3	348	H.M.	
ADP/UDP-glucose	P2RY12	10		H.M.	TSR3	95	H.M.	P2RY1	181		H.M.		*GPR23	267	H.M.	DAF	CDB7	349	H.M.	
GPR105	11	H.M.		MAS-related gene	MRG11	97	H.	P2RY2	182		H.M.		Orphan group A11	*GPR2	268	H.M.	EGF-like, mucin-like receptor (EMR)	*EMR1	350	H.M.
GPR36	12	H.M.			MRG2	98	H.	P2RY3	183	H.M.	*FKSG79			269	H.M.	*EMR2	351	H.M.		
*GPR87	13	H.M.			MRG3	99	H.	P2RY4	184	H.M.	Orphan group A12			*GPR2	270	H.M.	*EMR3	352	H.M.	
Adrenocortical	ADRA1A	14	H.M.		MRG4	100	H.	Relaxin/INSL3	LGR7	185		H.M.		*GPR3	271	H.M.	Lactophilin	*PCR16	353	H.M.
	ADRA1B	15	H.M.		MRG5	101	H.M.		LGR8	186		H.M.		*GPR3	272	H.M.		*LEC1	354	H.M.
	ADRA1D	16	H.M.	*MRG6	102	M.	Retinol	HTR1A	188	H.M.		*GPR150	273	H.M.	*LEC2	355	H.M.			
	ADRA2A	17	H.M.	*MRG7	103	M.		Serotonin	HTR1B	189		H.M.	*GPR150	274	H.M.	*LEC3	356	H.M.		
	ADRA2B	18	H.M.	*MRG8	104	M.	HTR1C		190	H.M.	*GPR15	275	H.M.	Proto-cadherin	*CELR1	357	H.M.			
	ADRA2C	19	H.M.	*MRG9	105	M.	HTR1D	191	H.	*GPR17	276	H.M.	*CELR2		358	H.M.				
	ADRB1	20	H.M.	*MRG10	106	M.	HTR1E	191	H.	*GPR18	277	H.M.	*CELR3	359	H.M.					
	ADRB2	21	H.M.	*MRG11	107	M.	HTR1F	192	H.M.	*GPR17	278	H.M.	Orphan group B1	*GPR4	360	H.M.				
	ADRB3	22	H.M.	*MRG12	108	M.	HTR1G	193	H.M.	*GPR18	279	H.M.		*GPR17	361	H.M.				
	ADRB3	22	H.M.	*MRG13	109	M.	HTR1H	194	H.M.	*GPR19	280	H.M.	*GPR20	362	H.M.					
ADRB3	22	H.M.	*MRG14	110	M.	HTR1I	195	H.M.	*GPR20	281	H.M.	Orphan group B2	*GPR20	363	H.M.					
ADRB3	22	H.M.	*MRG15	111	M.	HTR1J	196	H.M.	*GPR22	282	H.M.		*GPR18	364	H.M.					
ADRB3	22	H.M.	*MRG16	112	M.	HTR1K	197	H.M.	*GPR25	283	H.M.	*GPR19	365	H.M.						
ADRB3	22	H.M.	*MRG17	113	M.	HTR1L	198	H.M.	*GPR25	284	H.M.	*GPR20	366	H.M.						
ADRB3	22	H.M.	*MRG18	114	M.	HTR1M	199	H.M.	*GPR31	285	H.M.	Orphan group B3	*GPR20	367	H.M.					
ADRB3	22	H.M.	*MRG19	115	M.	HTR1N	200	H.M.	*GPR32	286	H.M.		*GPR17	368	H.M.					
ADRB3	22	H.M.	*MRG20	116	M.	Somatostatin	SSTR1	201	H.M.	*GPR33	287	H.M.	*GPR17	369	H.M.					
ADRB3	22	H.M.	*MRG21	117	M.		SSTR2	202	H.M.	*GPR34	288	H.M.	*GPR17	370	H.M.					
ADRB3	22	H.M.	*MRG22	118	M.	SSTR3	203	H.M.	*GPR35	289	H.M.	Orphan group B2	*GPR18	371	H.M.					
ADRB3	22	H.M.	*MRG23	119	M.	SSTR4	204	H.M.	*GPR36	290	H.M.		*GPR19	372	H.M.					
ADRB3	22	H.M.	*MRG24	120	M.	SSTR5	205	H.M.	*GPR40	291	H.M.	*GPR20	373	H.M.						
ADRB3	22	H.M.	*MRG25	121	M.	SPCALPC	G2A	206	H.M.	*GPR44	292	H.M.	Orphan group B3	*GPR22	374	H.M.				
ADRB3	22	H.M.	*MRG26	122	M.		GPR4	207	H.M.	*GPR45	293	H.M.		*GPR23	375	H.M.				
ADRB3	22	H.M.	*MRG27	123	M.	GPR5	208	H.M.	*GPR51	294	H.M.	*GPR24	376	H.M.						
ADRB3	22	H.M.	*MRG28	124	M.	GPR6	209	H.M.	*GPR52	295	H.M.	*GPR25	377	H.M.						
ADRB3	22	H.M.	*MRG29	125	M.	Sphingolipid	EDG1	210	H.M.	*GPR75	296	H.M.	*GPR26	378	H.M.					
ADRB3	22	H.M.	*MRG30	126	M.		EDG2	211	H.M.	*GPR80	297	H.M.	*GPR27	379	H.M.					
ADRB3	22	H.M.	*MRG31	127	M.	EDG3	212	H.M.	*GPR82	298	H.M.	*GPR27	380	H.M.						
ADRB3	22	H.M.	*MRG32	128	M.	EDG4	213	H.M.	*GPR83	299	H.M.	*GPR27	381	H.M.						
ADRB3	22	H.M.	*MRG33	129	M.	EDG5	214	H.M.	*GPR84	300	H.M.	*GPR27	382	H.M.						
ADRB3	22	H.M.	*MRG34	130	M.	EDG6	215	H.M.	*GPR86	301	H.M.	*GPR27	383	H.M.						
ADRB3	22	H.M.	*MRG35	131	M.	EDG7	216	H.M.	*GPR87	302	H.M.	*GPR27	384	H.M.						
ADRB3	22	H.M.	*MRG36	132	M.	EDG8	217	H.M.	*GPR88	303	H.M.	*GPR27	385	H.M.						
ADRB3	22	H.M.	*MRG37	133	M.	EDG9	218	H.M.	*GPR89	304	H.M.	*GPR27	386	H.M.						
ADRB3	22	H.M.	*MRG38	134	M.	Tachykinin	TACR1	218	H.M.	*GPR101	304	H.M.	*GPR27	387	H.M.					
ADRB3	22	H.M.	*MRG39	135	M.		TACR2	219	H.M.	*GPR103	305	H.M.	*GPR27	388	H.M.					
ADRB3	22	H.M.	*MRG40	136	M.	TACR3	220	H.M.	*GPR103	306	H.M.	*GPR27	389	H.M.						
ADRB3	22	H.M.	*MRG41	137	M.	TRH	TRHR	221	H.M.	*GPR103	307	H.M.	*GPR27	390	H.M.					
ADRB3	22	H.M.	*MRG42	138	M.		TRHR2	222	H.M.	*GPR103	308	H.M.	*GPR27	391	H.M.					
ADRB3	22	H.M.	*MRG43	139	M.	Trace amine	*GPR57	223	H.M.	*GPR103	309	H.M.	*GPR27	392	H.M.					
ADRB3	22	H.M.	*MRG44	140	M.		*GPR58	224	H.M.	*GPR103	310	H.M.	*GPR27	393	H.M.					
ADRB3	22	H.M.	*MRG45	141	M.	PAN1	225	H.M.	*GPR103	311	H.M.	*GPR27	394	H.M.						
ADRB3	22	H.M.	*MRG46	142	M.	TAR2	227	M.	*GPR103	312	H.M.	*GPR27	395	H.M.						
ADRB3	22	H.M.	*MRG47	143	M.	*TAR3	228	H.M.	*GPR103	313	H.M.	*GPR27	396	H.M.						
ADRB3	22	H.M.	*MRG48	144	M.	*TAR4	229	H.M.	*GPR103	314	H.M.	*GPR27	397	H.M.						
ADRB3	22	H.M.	*MRG49	145	M.	*GPR102	230	H.M.	*GPR103	315	H.M.	*GPR27	398	H.M.						
ADRB3	22	H.M.	*MRG50	146	M.	*TAT	231	H.M.	*GPR103	316	H.M.	*GPR27	399	H.M.						
ADRB3	22	H.M.	*MRG51	147	M.	*TAT	232	M.	*GPR103	317	H.M.	*GPR27	400	H.M.						
ADRB3	22	H.M.	*MRG52	148	M.	*TAT10	233	M.	*GPR103	318	H.M.	*GPR27	401	H.M.						
ADRB3	22	H.M.	*MRG53	149	M.	*TAT12	234	M.	*GPR103	319	H.M.	*GPR27	402	H.M.						
ADRB3	22	H.M.	*MRG54	150	M.	*TAT14	235	M.	*GPR103	320	H.M.	*GPR27	403	H.M.						
ADRB3	22	H.M.	*MRG55	151	M.	Urokinase II	GPR14	236	H.M.	*GPR103	321	H.M.	*GPR27	404	H.M.					
ADRB3	22	H.M.	*MRG56	152	M.		Vasopressin/Oxytocin	AVPR1A	237	H.M.	*GPR103	322	H.M.	*GPR27	405	H.M.				
ADRB3	22	H.M.	*MRG57	153	M.	AVPR1B		238	H.M.	*GPR103	323	H.M.	*GPR27	406	H.M.					
ADRB3	22	H.M.	*MRG58	154	M.	AVPR2	239	H.M.	*GPR103	324	H.M.	*GPR27	407	H.M.						
ADRB3	22	H.M.	*MRG59	155	M.	OXTR	240	H.M.	*GPR103	325	H.M.	*GPR27	408	H.M.						
ADRB3	22	H.M.	*MRG60	156	M.	LGR	*GPR48	241	H.M.	*GPR103	326	H.M.	*GPR27	409	H.M.					
ADRB3	22	H.M.	*MRG61	157	M.		*GPR49	242	H.M.	*GPR103	327	H.M.	*GPR27	410	H.M.					
ADRB3	22	H.M.	*MRG62	158	M.	*LGR8	243	H.M.	*GPR103	328	H.M.	*GPR27	411	H.M.						
ADRB3	22	H.M.	*MRG63	159	M.	SREB	*GPR27	244	H.M.	*GPR103	329	H.M.	*GPR27	412	H.M.					
ADRB3	22	H.M.	*MRG64	160	M.		*GPR85	245	H.M.	*GPR103	330	H.M.	*GPR27	413	H.M.					
ADRB3	22	H.M.	*MRG65	161	M.	*SREB3	246	H.M.	*GPR103	331	H.M.	*GPR27	414	H.M.						
ADRB3	22	H.M.	*MRG66	162	M.	Orphan group A1	*GPR2	247	H.M.	*GPR103	332	H.M.	*GPR27	415	H.M.					
ADRB3	22	H.M.	*MRG67	163	M.		*GPR6	248	H.M.	*GPR103	333	H.M.	*GPR27	416	H.M.					
ADRB3	22	H.M.	*MRG68	164	M.	Orphan group A2	*GPR21	250	H.M.	*GPR103	334	H.M.	*GPR27	417	H.M.					
ADRB3	22	H.M.	*MRG69	165	M.		*GPR22	251	H.M.	*GPR103	335	H.M.	*GPR27	418	H.M.					
ADRB3	22	H.M.	*MRG70	166	M.	Orphan group A3	*GPR26	252	H.M.	*GPR103	336	H.M.	*GPR27	419	H.M.					
ADRB3	22	H.M.	*MRG71	167	M.		*GPR27	253	H.M.	*GPR103	337	H.M.	*GPR27	420	H.M.					
ADRB3	22	H.M.	*MRG72	168	M.	Orphan group A4	*GPR37	254	H.M.	*GPR103	338	H.M.	*GPR27	421	H.M.					
ADRB3	22	H.M.	*MRG73	169	M.		*GPR37L1	255	H.M.	*GPR103	339	H.M.	*GPR27	422	H.M.					
ADRB3	22	H.M.	*MRG74	170	M.	Orphan group A5	*GPR41	256	H.M.	*GPR103	340	H.M.	*GPR27	423	H.M.					
ADRB3	22	H.M.	*MRG75	171	M.		*GPR43	257	H.M.	*GPR103	341	H.M.	*GPR27	424	H.M.					
ADRB3	22	H.M.	*MRG76	172	M.	Orphan group A6	*GPR45	258	H.M.	*GPR103	342	H.M.	*GPR27	425	H.M.					
ADRB3	22	H.M.	*MRG77	173	M.		*GPR46	259	H.M.	*GPR103	343	H.M.	*GPR27	426	H.M.					
ADRB3	22	H.M.	*MRG78	174	M.	Orphan group A7	*GPR47	260	H.M.	*GPR103	344	H.M.	*GPR27	427	H.M.					
ADRB3	22	H.M.	*MRG79	175	M.		*GPR48	261	H.M.	*GPR103	345	H.M.	*GPR27	428	H.M.					
ADRB3	22	H.M.	*MRG80	176	M.	Orphan group A8	*GPR49	262	H.M.	*GPR103	346	H.M.	*GPR27	429	H.M.					
ADRB3	22	H.M.	*MRG81	177	M.		*GPR50	263	H.M.	*GPR103	347	H.M.	*GPR27	430	H.M.					
ADRB3	22	H.M.	*MRG82	178	M.	Orphan group A9	*GPR51	264	H.M.	*GPR103	348	H.M.	*GPR27	431	H.M.					
ADRB3	22	H.M.	*MRG83	179	M.		*GPR52	265	H.M.	*GPR103	349	H.M.	*GPR27	432	H.M.					
ADRB3	22	H.M.	*MRG84	180	M.	Orphan group A10	*GPR53	266	H.M.	*GPR103	350	H.M.	*GPR27	433	H.M.					
ADRB3	22	H.M.	*MRG85	181	M.		*GPR54	267	H.M.	*GPR103	351	H.M.	*GPR27	434	H.M.					
ADRB3	22	H.M.	*MRG86	182	M.	Orphan group A11	*GPR55	268	H.M.	*GPR103	352	H.M.	*GPR27	435	H.M.					
ADRB3	22	H.M.	*MRG87	183	M.		*GPR56	269	H.M.	*GPR103	353	H.M.	*GPR27	436	H.M.					
ADRB3	22	H.M.	*MRG88	184	M.	Orphan group A12	*GPR57	270	H.M.	*GPR103	354	H.M.	*GPR27	437	H.M.					
ADRB3	22	H.M.	*MRG89	185	M.		*GPR58	271	H.M.	*GPR103	355	H.M.	*GPR27	438	H.M.					
ADRB3	22	H.M.	*MRG90	186	M.	Orphan group A13	*GPR59	272	H.M.	*GPR103	356	H.M.	*GPR27	439	H.M.					

FIGURE 2

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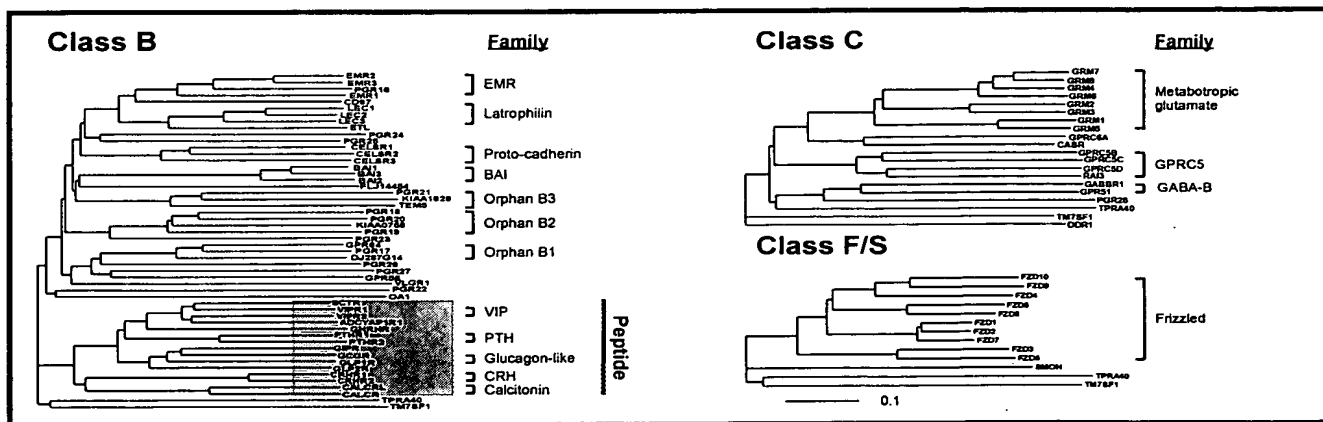
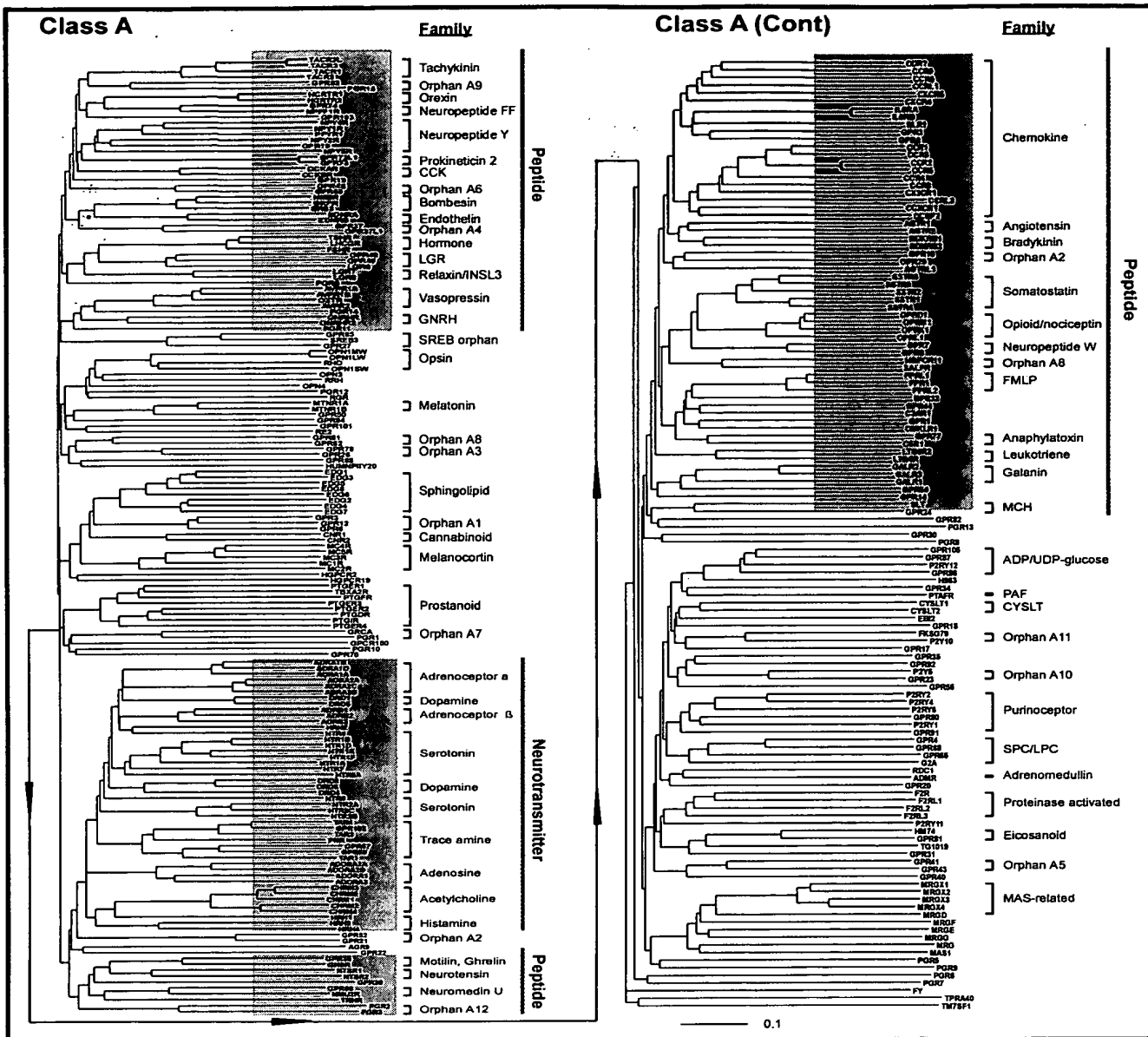


FIGURE 3.

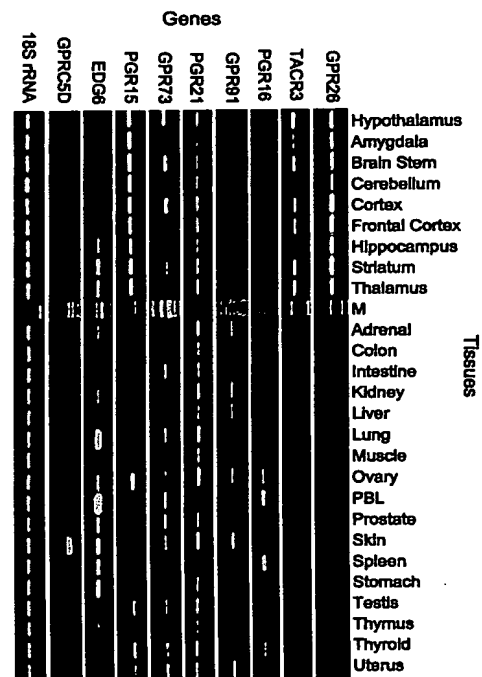


FIGURE 4.

Tissues	Genes
Hypothalamus	MRGG
Amigdala	GPR91
BrainStem	GPRC5D
Cerebellum	HM74
Cortex	CYSLT2
FrontalCortex	PGR17
Hippocampus	GPR9
Sutium	IL8RA
Thalamus	CCR3
Adrenal	P2Y10
Colon	PGR27
Intestine	ASTRL1
Kidney	EDG8
Liver	GPR101
Lung	GPR88
Muscle	SREB3
Ovary	GALP2
PBL	PGR8
Prostate	TACR3
Skin	BAI1
Spleen	NTSR1
Stomach	GPR85
Testis	GPR12
Thymus	HRH3
Thyroid	GPR37L1
Uterus	GPR26
	HTR7
	HTR1F
	GPR17
	GPR77
	GPR75
	GPR83
	HTR2A
	PGR7
	CELSR2
	CELSR3
	GPR86
	GRCA
	PGR19
	PGR15
	HTR4
	GPR37
	RE2
	LEC3
	LEC1
	LEC2
	P2RY12
	GPR19
	EDG8
	GPR23
	GPRC5B
	HTR1D
	TRHR2
	GPR4
	TM7SF3
	PGR23
	GPR105
	CD07
	CMKLR1
	KIAA0758
	PGR22
	TM7SF1
	GPR22
	TPRA40
	P2Y5
	RDC1
	GPR73
	GPR80
	CCBP2
	P2RY6
	CCRL1
	GPR48
	GPR21
	MRGF
	GPR43
	H983
	GPR92
	CYSLT1
	ETL
	TEM5
	GPR82
	CXCR6
	GPR18
	GPR84
	VIPR2
	GPR66
	GPR55
	EMR1
	GPRC5C
	FKSG79
	HGPCR11
	PGR29
	LGR6
	PTGDR
	GPR31
	FPR-RS2
	GPR35
	PGR10
	HCRTR1
	SSTR3

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FIGURE 5.

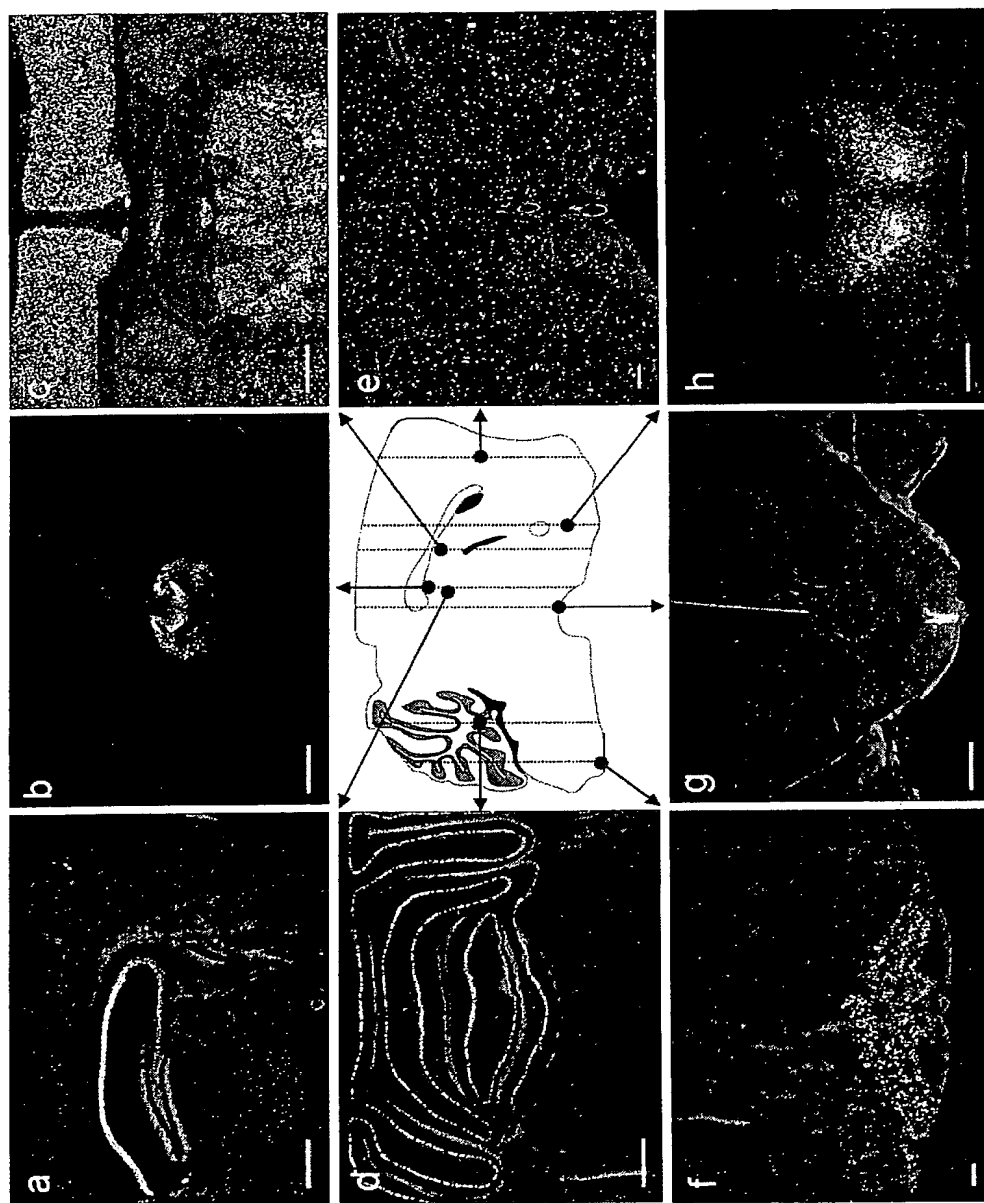


FIGURE 6A.

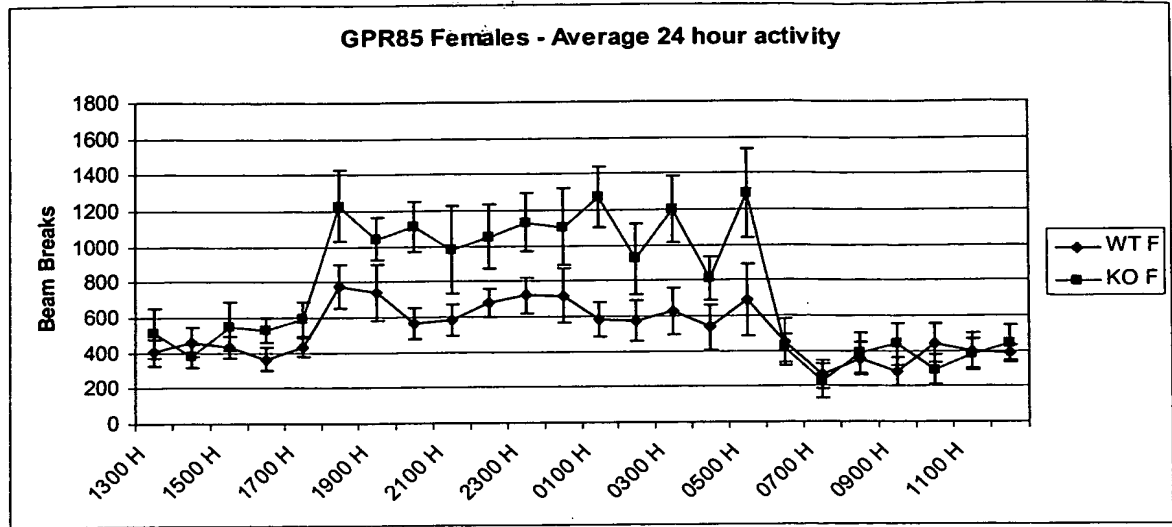


FIGURE 6B.

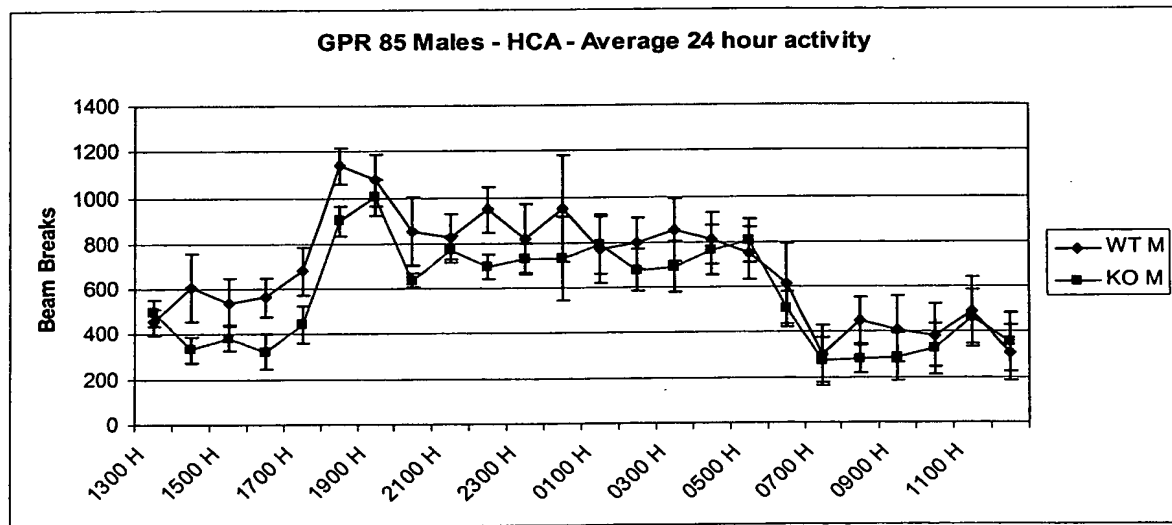


FIGURE 7A.

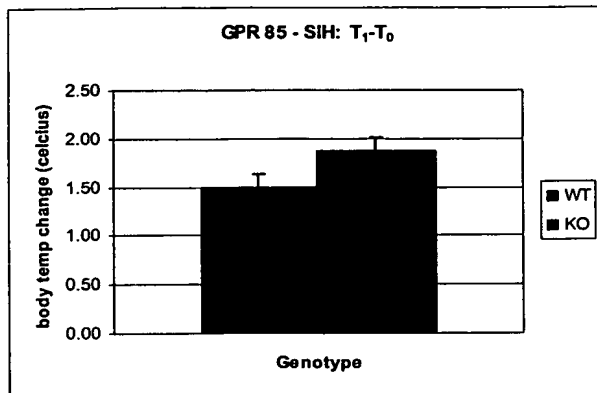


FIGURE 7B.

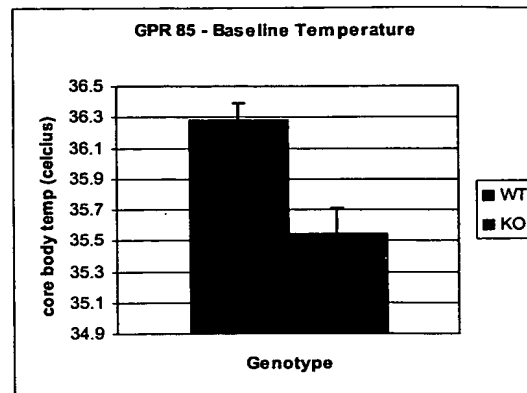
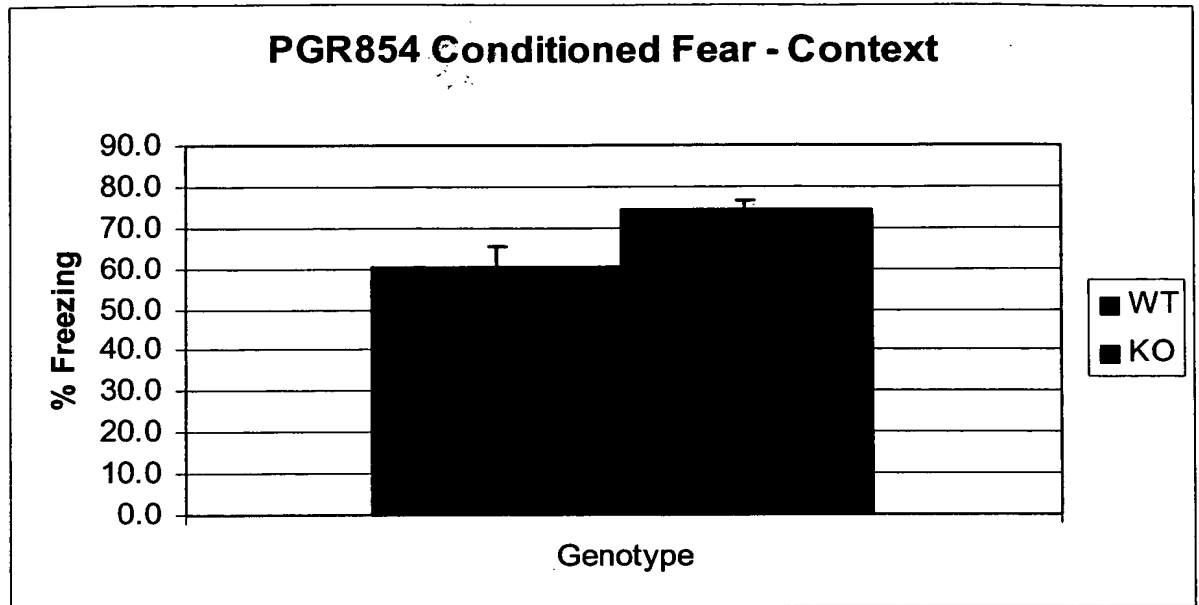


FIGURE 8.



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FIGURE 9A.

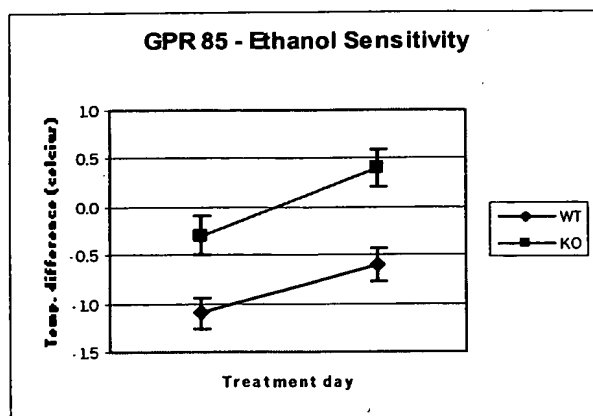
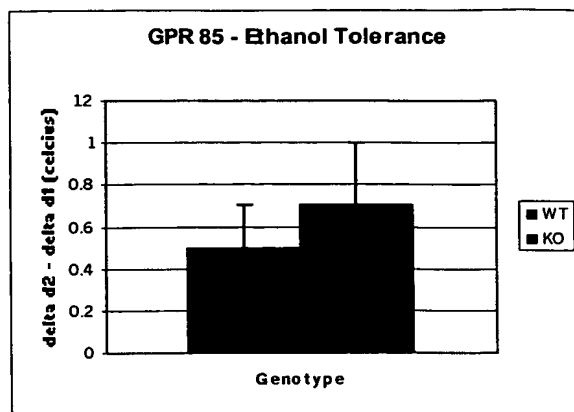


FIGURE 9B.



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